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Citation for final published version:

Team, WERU 2007. Interview with Jim Poole, Environment Agency Wales. Welsh Economic Review 19 (2) , pp. 30-34. 10.18573/j.2007.10405 file

Publishers page: <http://dx.doi.org/10.18573/j.2007.10405>
<<http://dx.doi.org/10.18573/j.2007.10405>>

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Interview with Jim Poole, Environment Agency Wales.



"Sustainable development – time to get emotional"

The Review is very pleased to quiz Jim Poole on his views and work on moving towards a Sustainable Wales. Jim's credentials on this subject are second to none. He has a Zoology degree from Cambridge, and an MSc in Applied Hydrobiology from Cardiff. Having worked for Welsh Water from 1977 to 1989, he then became the Corporate Planning Manager for the Welsh Region of the National Rivers Authority, and was subsequently heavily involved in setting up Environment Agency Wales. In 1998, Jim took the lead on sustainable development for Environment Agency Wales, and working alongside a number of organisations helped the Assembly prepare its first Sustainable Development Scheme. In 2002, he was appointed Visiting Professor in Engineering Design for Sustainable Development at Cardiff University. In this role he has forged links between the university and a community group in north Wales that is promoting the use of tidal lagoons as a way of generating electricity. In August 2004, Jim was seconded from the Environment Agency to Cynnal Cymru, the Sustainable Development Forum for Wales, as Policy Adviser. His main role was to manage Cynnal Cymru's "Call to Action" programme, organising discussions between the general public and recognised experts to promote sustainable development in Wales. He has recently returned to the Environment Agency where he continues his work as a champion for Sustainable Development.

You have an array of expertise, as well as access to many different interest groups. Perhaps you could start by explaining where you will position yourself as a commentator in this interview.

What you get today are my personal views; reflections from my time at various organisations, wearing a range of hats. For example, I have just completed a three-year secondment to Cynnal Cymru from the Environment Agency (EA) and I also work part-time as a visiting professor. And I always fall back on my academic training in ecology with its emphasis on adaptation, diversity, inter-connectedness and overall balance. I like to take the overview and a people-based approach,

focusing not simply on different ideas but on joining up the people who hold those ideas.

What is Cynnal Cymru?

Cynnal Cymru Sustain Wales, to give it its full name, was set up as a Sustainable Development (SD) forum. In olden days a 'forum' was a market place or a discussion place, and so I like to think of Cynnal Cymru as a market place for ideas. Essentially, we bring people together from many walks of life, to look at particular issues from different perspectives, or we look at Sustainable Development as a topic. Having facilitated a discussion we form a view and then advocate on that basis. It is a very young organisation, and a lot

of its four or so years have been spent sorting out resources and relationships with the Assembly and other stakeholders. It is funded almost entirely by the Assembly, although it was set up at arm's length specifically to provide independent advice. Inevitably there is a tension which we work through. As I see it, the Assembly has an integrating agenda and Cynnal Cymru is the space *outside* government where issues can be discussed from a variety of perspectives almost mirroring what is going on *inside* the Assembly between the various government departments. Governance wise, Cynnal Cymru has some 20 board members, drawn from different walks of life including environmental and human rights NGOs and not-for-profit organisations. Increasingly we are making links with social enterprises, such as farmers' markets and fair trade organisations. Once we engage these more sympathetic companies we can find a way into the mainstream. I am a great believer in things growing organically using a network type approach, and applying '6 degrees of separation' thinking (the idea that any two people in a country can be linked through a chain of six others).

Have you managed to get businesses to participate in the debate?

In terms of mainstream business, not to a huge extent yet. But as Cynnal Cymru grows outwards, pursuing the SD agenda, the business world is growing towards us, and at some point we are going to meet. Cynnal Cymru will be ONE of the meeting places. There is a big temptation with any organisation to present itself as THE thing – but we should be working together more. There are many organisations in this field, for instance Business in the Community and the Carbon Trust. Cynnal Cymru's role is to not to mimic other efforts but to create an all-inclusive network, a 'gateway', a 'one-stop shop' where any and all business can contribute. Through our web-site we are building up an extensive evidence base of SD practice in Wales.

What do you mean by Sustainable Development?

I notice you ask for *my* definition. Well, I don't think there is A definition. We have a lot to learn here from the social scientists, for whom SD is a 'wicked' issue – one that is so complex, so non-linear and ever changing that no single person, organisation or interest group can have the definitive view on it.

Different definitions serve only to emphasise different aspects.

The most frequently quoted definition is that from the Brundtland report (World Commission on Environment and Development, 1987) named after its Norwegian chair Gro Harlem Brundtland. This defined SD as “development which meets the needs of the present without compromising the ability of future generations to meet their own needs”. This emphasises the inter-generational equity issue.

Another image of SD is the ‘Russian Doll’ model, where the biggest doll is the environment, the next doll in is society, and the final, smallest, doll is the economy. What that is saying is that the economy is a creation of society, and that we all live within the environment. The environment sets limits on what we can do – or, to put it differently, provides the resources for all our needs. This reminds me of another image. Viewed from space, our beautiful planet has only a very thin layer of atmosphere and to me it is astonishing that it hasn’t changed more quickly than it has.

My own working definition is more of a concept. In 1999, the UK Government perceived SD as having four dimensions: social progress which recognises the needs of everyone; effective protection of the environment; prudent use of natural resources; and maintenance of high and stable levels of economic growth and employment. It is a 4 legged table – society, environment, natural resources and economy – and we are aiming for it to be both level and uniformly high. If you were to look at the top of the table you might see a picture of the future in terms of ‘Quality of Life’. The table is currently low and uneven. To raise the surface of the table you have to address all four of its ‘legs’ at the same time. People from each of these different camps have to at least accept there is a common agenda.

Can you give an example of the challenge of making an ‘even table’?

Difficulties arise when people’s mindsets are different. This can be the case for economists and environmentalists. The current debate about the Severn Barrage is a good case in point. Some environmentalists say “over my dead body”, while the economists are thinking, “what’s the big deal? The barrage could provide 5% of the UK’s electricity and drive economic development in the local area”. The point is that the Severn Estuary is a very dynamic habitat with high sediment levels, which make it relatively hostile to fish and most marine plants. The economists and the engineers are saying to the environmentalists “If we

build our barrage, the water will be clearer, natural productivity will rise and things will be better biologically”. What they can’t appreciate is that the estuary might be worth protecting precisely *because* it is relatively hostile. In fact in some ways the animal communities are very rich – such as those in the mudflats that provide food for migratory birds. Constructing a barrage would reduce these feeding grounds. The challenge is finding a balance between preserving the estuary as a natural site, while at the same time exploiting the tidal energy. If we are in a situation where Global Warming is proceeding apace, with sea levels rising rapidly, settlements on the banks of the Severn will be at risk. A barrage might then be an appropriate solution, because it would provide a measure of flood protection as well as energy. If, on the other hand, we do not have to factor rapidly rising sea levels into the timeframe, then a ‘tidal lagoon’ might be more appropriate. A lagoon would lie within the estuary without fully blocking it, thus preserving much of the existing ecosystem.

The UK SD Commission has just published its review of tidal energy in the UK (UK Sustainable Development Commission, 2007), and come out in favour of the barrage, subject to its meeting tight conditions. But the debate is still very polarised. The environmentalists suspect that, in some quarters, the real motivation for building the barrage is not so much for renewable energy (welcome though that would be), but to create a new conurbation of Cardiff, Newport and Bristol – a westward facing metropolis and UK entry point, balancing London and the Thames facing east. If so, then much of the tidal energy generated will simply be consumed by the additional, and potentially unsustainable, economic development stimulated in the area. Resolution will only come after careful, facilitated debate between the various interest groups, backed up by evidence.

I believe the decision-making process itself is very important, and that we do not pay sufficient attention to it. I took a photograph of the British Museum reading room, where Karl Marx developed his thinking. It is a huge and beautiful circular space filled with books and I could imagine myself sitting there thinking “I’m going to solve the Severn Barrage issue myself surrounded as I am by all the data in the world” – I call this a “data rich” approach to decision making. The opposite extreme is that you have no data at all but you talk as we are talking now, but with far more people invited to the table. I call this an “actor rich” approach to decision making. The point about the “actor rich”

approach is that people bring with them the wealth of their experience and accumulated expertise, as well as their views about the future – about *possibilities*. I favour this approach. To be precise, I favour an actor-rich approach to analysing a situation, followed by highly-focussed scrutiny of relevant data to test whether the conclusions reached are indeed valid.

Isn’t it the case that economic and social imperatives are very much ‘now’ things, whereas the depletion of natural resources and the degradation of the environment are seen as being much more about tomorrow?

The time dimension is a fundamental point. We come back to the Brundtland definition, which raised awareness of the impact of what we do today on future generations. We are only going to make progress if people today actually care about who comes after them. SD is an emotional issue – a very strange thing for a physical scientist to say. But I can illustrate this with a personal story, which came out of my work with a group in Rhyl focussed on the proposed tidal lagoon. They wanted a revision of the Brundtland definition – which was less about “*without compromising*” and more about “*thinking equally hard*” about future generations, which is quite difficult.

It made me think. My great grandmother was born in 1876 and she lived to be 102. I used to visit her every week, when we would talk about her childhood. If we consider that the industrial “carbon age” started in the 1800s, then my great grandmother knew people who were alive at the dawn of that age. If we are correct in our interpretation of climate change, and we respond accordingly, then our current way of life in the carbon age will draw to a close in 20 or 30 years time. With any luck I will still be alive then. This means that one person, my great grandmother, will have directly spoken to people whose lives spanned the entire carbon age, and that sets it in perspective. This “Span of Emotional Attachment”, as I call it, can be as long as 200 years. So one span takes us back to the dawn of the carbon age. Roundly two spans take us back to Shakespeare, five to the Battle of Hastings, and ten to the birth of Christ.

We must respect and learn from what has gone before and care about what comes after. We need to be emotionally attached to the future. Without that attachment, we may as well give up now. Hence my choice of title for this interview.

Can Wales play a 'pathfinder' role in the context of sustainable development?

I think Wales has a chance to become iconic. When the Assembly was set up, there were a number of influential people, who were very keen to see a statutory SD duty built into the Government of Wales Act. Only the governments of Tasmania and Estonia have similar duties (but differing in the detail). The Assembly had a further obligation to prepare a scheme setting out how it would meet this duty. As a result of this a number of organisations came together to lobby or to work with the Assembly. In other words, the duty also provided an impetus for other organisations interested in SD, to make bridges with the Assembly, and each other. What has emerged is a sort of matrix of Assembly departments each talking, by virtue of the Assembly's duty, and a community of organisations outside the Assembly also communicating because they share a greater goal. Each of those organisations on the outside interacts with its partner interests inside. So for example, Oxfam will be interested in that part of the Assembly dealing with social issues. The Environment Agency and RSPB etc. will be interested more in that part of the Assembly looking at environmental issues. It is this framework that provides the possibility for interesting things to be done.

In the context of the wider EU framework and EU policy more generally, it is possible to discern a 'Lisbon' Agenda, which is all about making the EU the most dynamic, knowledge-based economy in the world and a 'Gothenburg' agenda, which focuses on sustainability and the environment. These are often seen as conflicting agendas. In Wales, we understand that the Gothenburg Agenda in fact underpins the Lisbon agenda. Take the ERDF convergence programme - as well as the Environment being a cross-cutting theme for the whole programme, there are two specific priorities 'creating an attractive business environment' and 'building sustainable communities' which are a focus for direct thought. The work establishing the economic value of the environment was in fact undertaken by the Valuing our Environment partnership - an alliance of public and voluntary sector organisations led by the National Trust. This provided an important evidence base for government policy. This illustrates the point about the link between government and civil society.

I would also make a more general observation about devolution. For any particular subject area, the Assembly has far fewer people than the

corresponding arm of UK Government, and yet the issues are the same: agriculture is just as complex in Wales as it is in the UK. The *only* way the Assembly can make good the deficit is by working in partnership with others. This was a hidden cost of devolution but it is also a hidden benefit.

All these elements coupled with the idea that Wales is the right scale, (we all tend to know each other), mean that you've got a very joined-up country. Combine the identification of particular individuals who are sort of 'super-connectors' with the idea of '6 degrees of separation', and you can imagine that messages originating in one part of the network very quickly become rooted somewhere else. Finally on this, Wales is blessed with natural resources, particularly water and renewable energy. I don't believe that there are going to be any winners following climate change. We are all going to suffer, but Wales will have a degree of resilience because it is blessed in this way.

Where does climate change fit into the sustainable development debate?

Climate change is caused by the CO₂ that results from burning fossil fuel, although other gases such as methane from landfill sites and agriculture are implicated. Climate change is the most obvious, and currently the highest profile aspect of environmental degradation, and therefore seen as the greatest threat to sustainable development. Indeed, it is a product of *unsustainable* development. However, in some parts of the world other issues such as water shortages are equally pressing. If we had this conversation in the 1960s it might have been pesticides, and declining numbers of birds of prey, (this year we had peregrine falcons nesting on the City Hall in Cardiff). Another example is the current state of fish stocks; many waters are over fished and stocks virtually wiped-out. Again this is an emotional issue - trawler men in Scotland are fighting for the last remnants of their livelihood...the consequence of collective over-fishing in the past. The environment is the *source* of all the materials and energy which we use - but we must exploit them sensibly. We must live on nature's interest, rather than eroding its capital.

We all seem to understand the problem of climate change and we appear to have the institutions to promote more sustainable practices in this respect, but how do you engage the will of the people?

Here we get into issues of morality. I really feel you have to go with the grain of human nature. The environmentalists

are able to say "this is the scale of the problem, and these are the reductions in CO₂ that have to be made". The technologists can then respond with ways of achieving it, and psychologists will say "this is actually how we persuade people". The social scientists can then say "this is how we create the momentum". It is about building this link to the future and accepting that our current profligate lifestyles may simply be a transient blip in human development - rather than the long-term norm. The fact is that 20 years ago people got through life quite happily without, for example, having a stag weekend in Prague. My solution to reducing climate change is straightforward: we halve our energy demand, and meet half of what remains with renewable sources. If people currently take four trips abroad during the year then change - make it two, but stay twice as long each time you go. Obviously we will get nowhere by simply imposing the same solution on everybody, but you have to give everybody the same sort of challenge and let them work it out. We must encourage ingenuity, not stifle it.

Everybody on this planet has got an equal obligation to help in the process. People think that "it hasn't got anything to do with me - it's the power stations, it's the factories", but sorry, the power stations churn the energy out because you plugged in your appliance, and the factories exist because you bought the appliance in the first place. The further twist is that people are not equally well off. People in developing countries are less well off than us and we have a moral obligation to allow them to raise their living standards whilst at the same time moderating our own.

The point was well made by Tony Juniper, of Friends of the Earth (BBC Newsnight, 12th September 2007) who remarked that yes, times were hard in the 1950s, things became more comfortable in the 1960s and 1970s, but since then we have had greater wealth and consumption, and more holidays etc, but we are not getting any happier because of it. The difficulty is to get people to understand that we have had the 'party' but we want to avoid the 'hangover'. It is time to return to a more balanced way of living.

What should manufacturers be doing?

Manufacturers can do much to help. For example, they can ensure goods have long warranties; sell products which we do not throw away; move towards providing a service over a particular time, rather than simply sell us a product at a point in time; use recycled or recyclable materials. Although we rail

against EU directives, the EU Waste Electrical and Electronic Equipment (WEEE) directive provides a framework for doing exactly these things, which is fortunate.

How do you respond to the camp that says it would be more cost effective to spend money to adapt to the inevitable effects of climate change than to spend the same amount fully mitigating them (which may be an impossible task anyway)?

The 'bible' is now the Stern Review (HM Treasury, 2006) which is based on Intergovernmental Panel on Climate Change (IPCC) data which are already 2-3 years out of date, and so the Review must be considered optimistic. Stern believes that if we can arrest CO₂ emissions now, and also adapt to the consequences of climate change already built into natural systems, then we can afford it. If we delay, we can't. If we spend 1% of GDP now on this we can rein it in, if we do not rein it in, it will take between 5-20% of GDP in the future.

This is where you have to be really careful. People have a habit of talking about GDP and CO₂ levels but if we imagine what sort of world it would be at the CO₂ levels envisaged with runaway climate change, then GDP would be the least of our worries. It would actually mean a collapse of civilisation. We need to react urgently, and contract and converge is the appropriate policy. The developed world has to accept that it must do more than its 'fair' share because it is already ('unfairly') more prosperous.

What are your views on Carbon Offsetting?

This is a good example of where, as a sustainable development practitioner, I am expected to have grasped the whole range of the subject! So for my own benefit I'll keep it simple. If you go on a flight and buy an offset, one idea is that someone plants a tree, which is supposed to absorb your share of the flight's CO₂ emissions. But it may take many years for your tree's carbon absorption to equate with your flight emissions. Also soil disturbance while the forest is managed will itself emit CO₂. A much better alternative is to invest in small-scale renewable energy schemes in developing countries, such as a solar array or more efficient cooking stoves. If you are going to carbon-offset, then choose that option. Apart from anything else the social benefits of spending a carbon offset pound in the developing world are much greater than if you spent the same pound here.

According to the Environment Agency (Environment Agency, 2007), UK forests absorb only 2% of the UK's annual CO₂ emissions. The total amount of carbon stored in these trees is around 150 million tonnes, which is only five times the UK's annual emissions from road transport. Meanwhile, the Stern Review estimates that deforestation accounts for 18% of our global CO₂ emissions – more than is produced by the transport sector globally. Putting these two sets of figures side by side is very revealing. It implies that we should concentrate less on planting offset forests and more on preserving the mature forests that we already have. These ancient forests are also important for their biodiversity, their role in stabilising complex eco and drainage systems, and in providing resources for indigenous people. They may provide some of our future medicines. In other words, they have a multiplicity of uses. Compare these with the regimented plantations resulting from carbon offset, and heaven forbid if we start along the route of planting vast tracts of land for bio-ethanol crops. I understand that converting a field of cereal to litres of fuel is itself an energy intensive industrial process. There are better ways of using the land for creating fuel sources that require less processing, and therefore less energy. One example might be to use wood pellets, say from hazel coppice, in biomass boilers.

Do we have an 'enviro-leader' in Wales currently? In the UK?

I have thought hard about this question – there are so many people working within their own spheres of influence. We tend to think of organisations' figureheads – the chief executives and so on. But people operating at other levels undertake much of the essential opinion forming, changing people's attitudes. I'm thinking of people like Ruth Williams of the National Trust, who has consistently and carefully made the link between the economy and the environment. When Cynnal Cymru responded to 'Wales: A Vibrant Economy' (Welsh Assembly Government, 2005) with essentially the same message as Stern's, the officials met us with a wall of silence. We have since sat down with those same officials and their attitude has changed – the penny is dropping. As Cynnal Cymru grows and our message reaches businesses and policy makers, so they are growing towards us.

Can fiscal measures (designed to get people to think more about how they live their lives) ever be a solution? How much stick and how much carrot do you think is appropriate?

This question is about the next twenty years, and how we deal with climate

change, which is the most venomous symptom of unsustainable development. While scientists are advised to use metaphor sparingly, I think it is helpful here. The next two decades will be like shooting the rapids; we enter them with life jackets and helmets on. But these are very unusual rapids, because we have the power to choose whether we reach clear water ahead or whether the rapids go on and on and on. People need to understand this. Do we emerge or not? If we do not change the way we live, we will be smashed to pieces.

We need to make a managed transition, recognising that there will be victims, so it will be important to minimise the casualties. The economists will help us – they can put the right framework in place so that we learn to understand the cost of carbon emissions, and then pay the proper price. These costs must be up front so that people can make informed choices. Government needs to set the challenge through these mechanisms and industries and individuals have to respond. It is no good simply taxing people off the road, for example, without there being adequate alternatives in place. It is no good imposing carbon taxes without clearly demonstrating how those taxes would be used to create carbon efficiencies elsewhere. In other words fiscal measures need to be hypothecated. But it is also an issue of timing and cash flow. We need the alternatives in place first, and these need to be paid for. In effect we need to find market mechanisms which provide the means of funding the significant investment that is required now to make the transition to new behaviours more tolerable.

How will we know, in ten years or so time, whether we in Wales have made progress towards sustainable development?

We will know we have succeeded if what was wrong is now right. If we save lives, we progress. If we reduce CO₂ emissions and arrest the decline in biodiversity we progress. If every person has a valuable role in society then we progress. We are a species like any other, so it is natural that we want to perpetuate ourselves, but this must be achieved in a balanced way. There are two schools of thought on how we monitor our progress. There are those who advocate quantitative indicators and strict targets and there are those who favour the 'photographic' visual approach. Indicators have a role, but they also have significant limitations. They may be too narrow. For example it is clearly desirable to reduce hospital waiting times but should this be the sole criterion for assessing the performance of the National Health

Service? At the other extreme, the Ecological Footprint attempts to assess the environmental impact of all our consumption activities and present it as a single figure – an equivalent number of ‘planet earths’. The weakness with the Footprint is that the calculations are very complex and it is difficult to keep track of the underpinning assumptions. With other indicators it’s difficult to make the link with the real world. What exactly is GDP per head? What figure should we be aiming for and why?

For these reasons, I personally favour the “photographic” approach. We will know we are starting to live the message when we see people flying less, using their cars more carefully, and living and working in comfortable buildings without inefficient boilers on the inside or, indeed, huge extractor fans hanging off the walls outside.

Jim Poole. Thank you very much.

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